UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/772,712	02/05/2004	Yu-Chou Lee	250323-1050	5613

24504 7590 02/23/2005

THOMAS, KAYDEN, HORSTEMEYER & RISLEY, LLP
100 GALLERIA PARKWAY, NW
STE 1750
ATLANTA, GA 30339-5948

EXAMINER	
OKEZIE, ESTHER O	

ART UNIT	PAPER NUMBER
3654	

DATE MAILED: 02/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/772,712	LEE ET AL.	
	Examiner	Art Unit	
	Esther O. Okezie	3654	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-6 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-6 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

1. Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thomas et al in view of White et al.

2. Regarding claims 1-6 Thomas et al. discloses an apparatus for gripping semiconductor substrates comprising a main body (platform 14) and pads allocated on the main body to load a substrate, wherein a material of the pad is identical or similar to that of the substrate. Thomas et al teaches the use of O-ring pads (24) are made of quartz for low friction, low contamination, and low damage levels of a substrate. These quartz pads would be suitable for carrying substrates made of glass or quartz which are well known in the art or any other substrate. However, Thomas et al. does not disclose a glass substrate. White et al. discloses a substrate transfer shuttle transferring large and small glass substrates. It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize the apparatus of Thomas et al. to support glass substrates as taught by White et al. as the use of glass or quartz substrates are well known in the art for use in numerous applications including liquid crystal display (LCD)

manufacturing, chemical vapor deposition (CVD), thin film transistor fabrication, physical vapor deposition (PVD), etc.

3. Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miyata et al, JP363239839A in view of White et al.

4. Regarding claims 1-6 Miyata et al. discloses an apparatus for gripping semiconductor substrates comprising a main body (14) and pads allocated on the main body to load a substrate, wherein a material of the pad is identical or similar to that of the substrate. Miyata et al teaches the use of pads (17) are made of quartz which are suitable for carrying substrates made of glass or quartz which are well known in the art or any other substrate. However, it is unclear whether Miyata et al. discloses a glass substrate. White et al. discloses a substrate transfer shuttle transferring large and small glass substrates. It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize the apparatus of Miyata et al. to support glass substrates as taught by White et al. as the use of glass or quartz substrates are well known in the art for use in numerous applications including liquid crystal display (LCD) manufacturing, chemical vapor deposition (CVD), thin film transistor fabrication, physical vapor deposition (PVD), etc.

5. Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bui et al in view of White et al.

6. Regarding claims 1-6 Bui et al. discloses an apparatus for gripping semiconductor substrates comprising a main body (100) and pads (lift pins 222) allocated on the main body to load a substrate, wherein a material of the pad is identical

or similar to that of the substrate. Thomas et al teaches the use of lift pins 222 for substrate support made of quartz which are suitable for carrying substrates made of glass or quartz which are well known in the art or any other substrate. However, Bui et al. does not disclose a glass substrate. White et al. discloses a substrate transfer shuttle transferring large and small glass substrates. It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize the apparatus of Bui et al. to support glass substrates as taught by White et al. as the use of glass or quartz substrates are well known in the art for use in numerous applications including liquid crystal display (LCD) manufacturing, chemical vapor deposition (CVD), thin film transistor fabrication, physical vapor deposition (PVD), etc.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Esther O. Okezie whose telephone number is (703) 305-0433. The examiner can normally be reached on Mon-Fri 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Katherine A Matecki can be reached on (703) 308-2688. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

eoo

Kathy Matecki

KATHY MATECKI
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600